



City of Scottsdale Water and Sewer Rate Report

Fiscal Year 2016/17

***Prepared by:
City of Scottsdale Financial Services
And Water Resources Divisions
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I. Summary

As prescribed by the City of Scottsdale's adopted Comprehensive Financial Policies, the City sets rates for water and sewer customers based on an annually updated five year financial plan for each enterprise fund. The five year plans are used to ensure that rate adjustments generate sufficient revenues to cover costs of serving customers and to maintain adequate reserves in accordance with the City's adopted financial policies; reserve policies provide for contingencies and stabilize rate increases over the five year planning period. As part of the comprehensive planning effort, the impact on the combined utility bill is carefully considered in determining the appropriate balance between rate increases and debt financing. To accomplish this objective, the City systematically incorporates marginal rate changes in conjunction with debt financing to avoid acute rate escalations at any point in time.

In accordance with its adopted financial policies, the City completed the annual updates to the comprehensive five year financial plans that incorporate all projected operating and capital revenues and expenses to determine the cash needs of the Water and Sewer Enterprise funds. To meet the cost recovery and revenue requirements identified in the updated plans and to achieve rate stabilization over the five year planning period, the City is not proposing modifications to its water and sewer rates. However, the City is proposing new or increases in some miscellaneous water meter/service charges to meet cost recovery requirements for services provided to specific customers.

Based on the updated five year financial plans, a synopsis of revenue requirements and recommended water, sewer and miscellaneous water meter/service charges for the enterprise funds are explained below.

Water – Revenue requirements for the water enterprise fund are significantly impacted by the rising cost of purchased water, electrical power and treatment chemicals. Other cost factors affecting the water fund revenue requirements over the five year planning period include:

- Capital and associated operating costs required to meet federal water regulations
- Capital costs for rate-funded water treatment and distribution system improvements to address aging infrastructure replacement needs identified through the asset management program
- Operating cost increases for preventative maintenance.

The City is not proposing modifications to the existing water base fees:

| Base Fees (All Customers) | |
|------------------------------|----------|
| 5/8" Meter | \$11.25 |
| 3/4" Meter | \$14.50 |
| 1" Meter | \$20.50 |
| 1.5" Meter | \$33.75 |
| 2" Meter | \$45.00 |
| 3" Meter | \$60.00 |
| 4" Meter | \$140.00 |
| 6" Meter | \$280.00 |
| 8" Meter | \$390.00 |

The City is not proposing modifications to the existing residential water rate schedule:

| Residential Commodity Rates and Tiers | | | |
|---------------------------------------|--------|--------|--------|
| Tier | Rate | From | To |
| 1 | \$1.65 | 0 | 5,000 |
| 2 | \$2.85 | 5,001 | 12,000 |
| 3 | \$3.55 | 12,001 | 40,000 |
| 4 | \$4.50 | 40,001 | 65,000 |
| 5 | \$5.25 | Over | 65,000 |
| Rates are Per 1,000 Gallons | | | |

The City is not proposing modifications to the existing commercial/landscaping water rate schedule:

| Commercial/Landscaping Commodity Rates and Tiers | | | |
|--|--------|--------|--------|
| Tier | Rate | From | To |
| 1 | \$1.65 | 0 | 5,000 |
| 2 | \$2.85 | 5,001 | 10,000 |
| 3 | \$3.55 | 10,001 | 30,000 |
| 4 | \$3.85 | Over | 30,000 |
| Rates are Per 1,000 Gallons | | | |

The complete water rates schedule is presented at Exhibit A.

Sewer - Revenue requirements for the sewer enterprise fund are significantly impacted by the rising cost of electrical power and treatment chemicals. Other cost factors affecting the sewer fund revenue requirements over the five year planning period include:

- Capital and associated operating costs required to meet federal regulations
- Capital costs for rate-funded wastewater treatment and collection system improvements to address aging infrastructure replacement needs identified through the asset management program
- Operating cost increases for preventative maintenance.

The City is not proposing modifications to the existing sewer base fees:

| Base Fees (All Customers) | |
|------------------------------|----------|
| 5/8" Meter | \$3.00 |
| 3/4" Meter | \$3.00 |
| 1" Meter | \$3.00 |
| 1.5" Meter | \$18.00 |
| 2" Meter | \$42.00 |
| 3" Meter | \$54.00 |
| 4" Meter | \$78.00 |
| 6" Meter | \$150.00 |
| 8" Meter | \$210.00 |

The City is not proposing modifications to the existing sewer rate schedule:

| Customer Category | Rate |
|-----------------------------|--------|
| Single Family Residential | \$2.63 |
| Multi-Family Residential | \$2.70 |
| Commercial Without Dining | \$2.70 |
| Commercial With Dining | \$3.25 |
| Hotels Without Dining | \$2.79 |
| Hotels With Dining | \$3.35 |
| Car Washes | \$2.60 |
| Commercial Laundry | \$3.39 |
| Laundromats | \$2.72 |
| Metal Platers | \$2.76 |
| Restaurants, Bakeries | \$4.70 |
| Service Station Auto Repair | \$2.79 |
| Medical Institutes | \$2.94 |
| Schools | \$2.72 |
| Rates are Per 1,000 Gallons | |

The complete sewer rates schedule is presented at Exhibit B.

Long Term Financing – To address water and sewer rehabilitation and replacement needs the City recently issued \$20.0 million in long term debt and may issue up to an additional \$57.1 million of water and sewer debt over the five year planning period.

Miscellaneous Water Meter/Service Charges - To address cost recovery, several increases to miscellaneous water meter/service charges are being proposed effective July 1, 2016 to meet the City's financial policy that charges recover all direct and indirect costs of service. Miscellaneous charges, i.e. water meter installation, hydrant meter installation and removal, etc., are assessed to specific users of the service so that general rate payers do not bear the burden. These increased charges will be phased in over two years to bring the charges in line with actual costs. Cost drivers that affect miscellaneous charges include installation of smart meters and the rising cost of water meters due to new federal standards. Other miscellaneous charges have increased due to higher labor rates and equipment costs which have risen due to general inflation. Water and sewer miscellaneous charge adjustments are forecasted to increase revenues in fiscal year 2016/17 by approximately \$224,000 and effective July 1, 2016. The proposed Miscellaneous Water Meter/Service Charges schedule is presented as Exhibit C.

Changes to the City Code for housekeeping updates, including definitions, titles and clarifications to the water and sewer conservation rebate programs are proposed to be effective July 1, 2016.

II. Background

The City of Scottsdale Water Resources Division's mission is *"to consistently deliver superior quality water and service to the citizens of Scottsdale by continuously ensuring a safe, sustainable drinking water system, operating an innovative water reclamation (sewer) system and maintaining our position as one of the nations most advanced and efficient water utilities"*.

In order to accomplish this mission, the City incurs costs related to the operation, maintenance and construction of its water and sewer systems. The following are some of the primary factors affecting the water and sewer costs of operation and the capital program:

- Compliance with the Groundwater Management Act - With the passage of the Arizona Groundwater Management Act (GMA) in 1980, the Phoenix Active Management Area was created to reduce groundwater withdrawals to a point where "safe-yield" is achieved by year 2025. "Safe-yield" is achieved when the groundwater withdrawals equal the amount of groundwater that is naturally or artificially recharged (i.e., zero groundwater mining). The GMA also requires the City to demonstrate a 100-year Assured Water Supply for existing committed and future demand. This impacts costs in three ways:
 - Source of supply – additional water supplies were obtained and include surface water purchases/leases and/or groundwater recharge in compliance with the GMA;
 - Treatment – surface and reclaimed water require more treatment than groundwater;
 - Distribution – an increased distribution system is required when treatment is from a central facility rather than from local wells.
- Compliance With Federal And State Water Quality Standards - The Safe Drinking Water Act and the Clean Water Act set the standards for water treatment/delivery and wastewater treatment/collection, respectively. As the level of these standards has become more stringent, the City's compliance costs have also increased. Most recently, the Stage 2 Disinfectants and Disinfection Byproducts (DBP) Rule has caused a major escalation of costs for both capital improvements and operating costs. The City currently meets the EPA Stage 2 DBP Rule which requires a compliance limit of 80 parts per billion at individual locations.
- Population Disbursement Over Broad And Varying Terrain - The City's population is distributed over 185 square miles. The water system includes 15 service zones due to mountainous terrain. Elevations increase over 2,300 feet, rising generally from the south to the north and east, greatly affecting electricity, maintenance, water distribution and wastewater collection costs.
- Major Water Capital Projects
 - Water Distribution System Improvements - Improve the water distribution system due to system aging, and increasing demands attributed to downtown revitalization. The project includes replacement of mains, pressure regulating valves, meters and other valves, as well as the design and construction of new water mains at various locations throughout the distribution system to improve service and to reduce operating cost. Replacement of existing small mains (4-inches and smaller) is required to meet fire flow requirements as set forth by ordinance. This project will also include minor design, maintenance and construction modifications to various water treatment plant infrastructure, pump stations and storage tanks as driven by findings of the division's System Asset Management Program. An estimated \$29.8 million will be spent over the next five years.

- Thomas Groundwater Treatment Facility – Design and construct a reverse osmosis treatment facility to treat water for the Central Groundwater Treatment Facility at this location. An estimated \$25.1 million will be spent over the next five years.
- Water Treatment Facility Improvements – Improvements at the water treatment facilities due to aging components. This project will include minor design, maintenance and construction modifications to various water treatment plant infrastructure, replacement of media, pump stations and storage tanks as driven by findings of the division's System Asset Management Program. An estimated \$17.6 million will be spent over the next five years.
- Frank Lloyd Wright 24 Inch Transmission Main – Install approximately four miles of large diameter water transmission main in the Frank Lloyd Wright corridor east of the Loop 101. Improve the pumping capacity at Booster Station 83B to address existing low operational capacities and pressures in the East Shea portion of the service area. An estimated \$14.4 million will be spent over the next five years.
- Zone 14/16 Water Improvement Phase – Design and construct a 2.5 million gallon reservoir, booster pump station and install approximately 10,000 linear feet of 16" water line in Carefree Highway to Bartlett Road to serve Wildcat Hills in the far reaches of the city limits. An estimated \$14.1 million will be spent over the next five years.
- Water Meter Replacement Program – Provides for the purchase and installation of automated water meter equipment. The division is in the process of a multi-year transition from conventional-read water meters to automated metering devices for all customers. An estimated \$11.2 million will be spent over the next five years.
- Major Sewer Capital Projects
 - SROG WWTP and Collection System – includes:
 - The Salt River Outfall/Southern Avenue Interceptor (SRO/SAI) pipeline system is the major wastewater interceptor system conveying wastewater for the 5 Sub-Regional Operating Group (SROG) Partner Cities across the valley to the 91st Avenue Wastewater Treatment Plant. The first phase of this project is to complete a study and plan out the technology, timing and cost for odor control on the overall system.
 - Provides for modifications and improvements at the Multi-City 91st Avenue Wastewater Treatment Plant located in Phoenix. The City of Scottsdale's proportionate cost share is derived through existing intergovernmental agreements with the Multi-City Sub-Regional Operating Group (SROG).
 - Provides for modifications and improvements to the Salt River Outfall (SRO) sewer line which transmits sewer flow approximately 26 miles from Scottsdale's city limits to the Multi-City 91st Avenue Wastewater Treatment Plant located in Phoenix. The City of Scottsdale's proportionate cost share is derived through existing intergovernmental agreements with the Multi-City Sub-Regional Operating Group (SROG).
 - The City's proportionate share is derived through existing intergovernmental agreements with SROG. The related sewage collection line and interceptor odor control is programmed at approximately \$32.5 million over the next five years.
 - Wastewater Collection System Improvements - Design and construct sewer lines, complete treatment plant work and rehabilitate sewer manholes in the aging sewer system per the Asset Management Program. Many of the sewer lines in the city have been in use for well over 30 years. The city is being proactive to avoid serious problems in the sewer system resulting from the aging infrastructure. In conjunction with the Asset Management Program, sewer lines will be videotaped to find potential problems, and design will be initiated to correct any identified problems. Additionally, this project will replace undersized sewer lines and provide new

infrastructure to support redevelopment associated with downtown revitalization. An estimated \$23.6 million will be spent over the next five years.

- Wastewater Treatment Facility Improvements – Provides for the design and construction of treatment plant modifications at the Water Campus and the Gainey Ranch WWTP. Addresses the rehabilitation and replacement of wastewater headworks, piping, clarifiers, pumps, filters, electrical and control systems, HVAC equipment, odor control infrastructure, disinfection and other chemical systems. Also provides for miscellaneous site work such as access drives, shade canopies, grading improvements, and site lighting. An estimated \$9.8 million will be spent over the next five years.
- Cross Roads East Wastewater – Construct sewer lines within the area consistent with a development agreement. Advanced construction of streets within the Core North/Core South area by the city will require concurrent installation of sewer lines to provide service for future adjacent development. An estimated \$4.5 million will be spent over the next five years.

- Major Water and Sewer Rate Structures

- Water Rate Structure - Water rate structures play an essential role in communicating the value of water to customers, thus promoting long-term efficient use. Increasing block rate structures most effectively communicate this message and encourage efficient water use when compared to other types of rate structures. Through this increasing block rate design, the unit price for water increases as the volume consumed increases, with prices being set for each “block” of water use. Customers who use low volumes of water are charged a modest unit price and rewards conservation; those using higher volumes pay higher unit prices.

The City’s water rate structure consists of a monthly base service charge, which is based on the size of the water meter, and a monthly volume/commodity charge. A five-tier increasing block rate structure is used to determine the water volume charge for single family residential accounts. A four-tier increasing block rate structure is used for multi-family residential, commercial/industrial, and non-residential landscape/irrigation customers. The tiers are intended to provide a pricing incentive to differentiate between responsible water use and excessive use primarily associated with high levels of outdoor watering of turf areas with treated drinking water.

- Sewer Rate Structure – Sewer customers are billed based upon 90% of their average water consumption for the months of December, January and February of the prior year. If a customer experiences an unusual amount of indoor and/or outdoor water use during these months, the customer may request an adjustment by completing a “Water Resources Sewer Adjustment Form”. The variance in Customer Category rates reflect the relative flows and loading experienced by the sewer system.

- **Rate History and Benchmarking**

- **Rate History** – A key objective of the City's comprehensive planning effort is to keep the combined increases to water and sewer rates at or below the change in the Consumer Price Index. The City has been consistently below the CPI for the last ten years as shown in the table below.

SUMMARY OF ANNUAL UTILITY RATE INCREASES

| Fiscal Year | Water % Increase | Sewer % Increase | CPI % Increase* |
|-------------|---------------------|---------------------|--------------------|
| 2005/06 | 3.5 | 4.0 | 4.8 |
| 2006/07 | 5.5 | 6.0 | 4.8 |
| 2007/08 | 5.5 | 6.0 | 5.4 |
| 2008/09 | 5.5 | 6.0 | 6.2 |
| 2009/10 | 2.5 | 3.0 | 6.2 |
| 2010/11 | 0 | 0 | 5.2 |
| 2011/12 | 0 | 0 | 5.5 |
| 2012/13 | 0 | 0 | 4.5 |
| 2013/14 | -1.8 | 4.0 | 3.3 |
| 2014/15 | 0 | -1.2 | 4.7 |

* This is the June percentage change for "Water, wastewater and trash collection services" as reported by the US Department of Labor in the *Consumer Price Index Report (CPI-U), Table 1. Consumer Price Index for All Urban Consumers (CPI-U): U.S. city average, by expenditure category and commodity and service group.*

- **Benchmarking** – The following table presents the proposed City of Scottsdale monthly utility charges in comparison with other local communities. This comparison is based on use of a 5/8 inch water meter, 11,500 gallons of water consumption, 8,000 gallons of sewer collection. If a city does not use a 5/8 inch meter, the 3/4 inch meter has been used. The City of Phoenix seasonal rates have been averaged, and the amounts do not include taxes.

| City or Town | Water Charges | Sewer Charges | Total Bill |
|--------------|------------------|------------------|------------|
| Gilbert | \$27.14 | \$25.82 | \$52.96 |
| Chandler | \$27.99 | \$26.35 | \$54.34 |
| Tempe | \$34.56 | \$25.02 | \$59.58 |
| Phoenix | \$35.17 | \$26.04 | \$61.21 |
| Scottsdale | \$38.03 | \$24.04 | \$62.07 |
| Peoria | \$41.72 | \$25.37 | \$67.09 |
| Glendale | \$37.28 | \$37.68 | \$74.96 |
| Mesa | \$54.33 | \$33.33 | \$87.66 |

Although Scottsdale's water charges are higher than several other cities, there are system characteristics that significantly impact the costs which include but are not limited to: (1) a

heavier reliance on the more expensive CAP surface water supplies versus the significantly less expensive Salt River Project (SRP) water supply; (2) larger impacts of arsenic regulations on Scottsdale's groundwater supplies and (3) significant elevation changes which require increased electrical power costs to pump water through 18 pressure zones.

III. Financial Planning Process

In conjunction with the budget process and based on the most current Water Resources Master Plans, the City develops and maintains a comprehensive multi-year Water Resources Financial Plan, which is updated annually. The plan consists of projections for operating and capital costs of the water and sewer systems, as well as projections for funding from user rates, development fees, bond issuances, interest earnings, inter-fund loans, and existing cash balances of the funds. The plan also considers projected changes to three reserves: 1) the replacement and extension reserve required by bond indenture, 2) the revenue bond reserve required by bond indenture and 3) the operating reserve funded between 60 and 90 days of budgeted expenditures required by adopted financial policy. In addition, the plan considers the capital/rate stabilization balance. Consistent with American Water Works Association (AWWA) Principles of Water Rates, Fees and Charges, the City bases its water and sewer rate increases on the cash need projections shown in the financial plan for the prospective five year period, currently fiscal year 2016/17 through fiscal year 2020/21.

Water Resources Financial Planning Objectives:

- To maintain a comprehensive financial plan which incorporates all projected operating and capital revenue and expense of the water and sewer funds for the planning period;
- To maintain a minimum ratio of revenue to debt service higher than the minimum bond indenture requirement of 1.2/1 to ensure debt coverage in times of revenue fluctuations attributable to weather or other causes, and to ensure a balanced pay-as-you-go Capital Improvement Plan;
- To maintain replacement and extension reserves equal to 2% of assets in accordance with bond indenture requirements;
- To provide an operating reserve funded between 60 and 90 days of budgeted operational expenditures;
- To maintain a capital/rate stabilization balance in order to fund the capital program and evenly distribute necessary operating rate increases over time to minimize dramatic rate escalations in any one year;
- To maintain and fund the water and sewer funds as separate, self-sustaining enterprise funds;
- To continue to develop a cost-based rate structure encouraging water conservation;
- To maintain development fees which reflect current growth projections and capital needs so that growth is paying a proportionate share of these costs.

The City accomplishes these financial planning objectives through the following activities:

- Periodic review of Water Resources Master Plans and the Asset Management Plan to ensure that existing and planned infrastructure and water supplies continue to be adequate to provide reliable service to existing customers and meet growth projections and that the Water Resources Capital Improvement Program incorporates these needs.

- Annual review and update of the financial plan to ensure that the plan reflects sufficient revenues to fund operating and capital cost projections, including the impact of any new state or federal regulations.
- Periodic review and adjustment of development fees to ensure that new development pays for a proportionate share of the capital cost of infrastructure capacity needed for growth. New development fees are established following completion of updates to the Water Resources Master Plan identifying a specific infrastructure improvement plan.
- Annual review and adjustment of water and sewer rates; the City desires to keep utility bills affordable for its customers and, as part of the comprehensive planning effort, carefully considers the impact on the combined utility bill in determining the appropriate balance between rate increases and debt financing. To accomplish this, the City has a systematic planned approach that incorporates marginal rate changes from year to year in conjunction with debt financing.

The following charts summarize the forecasted cash flows for the Water and Sewer Enterprise funds for the five year period. Following this chart are descriptions of the sources and uses of funds. Annual detail is presented in Section IV.

**Sources and Uses of Funds
FY 2016/17 Through FY 2020/21**

Amounts in \$Millions

Water and Sewer Enterprise Funds

| | <u>Water Fund</u> | <u>Sewer Fund</u> |
|---|--------------------------|--------------------------|
| Beginning Cash Balance | \$114.9 | \$62.7 |
| Sources of Funds | | |
| Rate Revenues | 492.0 | 207.4 |
| Other Revenues | 9.8 | 23.3 |
| Development Fee Revenues | 9.0 | 7.5 |
| New Bonds Issues | 42.1 | 15.0 |
| Total Sources of Funds | <u>667.7</u> | <u>315.9</u> |
| Uses of Funds | | |
| Operating Expenses | 259.2 | 110.6 |
| Operating Transfers | 55.9 | 16.1 |
| Debt Service | 102.1 | 66.9 |
| Capital Improvement Funding | 175.0 | 87.6 |
| Total Uses of Funds | <u>592.2</u> | <u>281.3</u> |
| Ending Cash Balance | <u>75.5</u> | <u>34.5</u> |
| Less Required Reserves | | |
| Operating Reserve | 12.2 | 4.3 |
| Replacement & Extension Reserve | 29.7 | 13.6 |
| Revenue Bond Reserve | 0.0 | 4.6 |
| Capital / Rate Stabilization Balance | <u>\$33.7</u> | <u>\$12.0</u> |

Note: Minor differences due to rounding.

SOURCES OF FUNDS

Beginning Cash Balance - Previously accumulated cash balances which are combined with total sources of funds.

Rate Revenues - Charges for services provided to the customer, such as metered sales in the water fund or seasonal sewage flows in the sewer fund.

Other Revenues - Charges for services provided, including account initiation charges, connection charges, unmetered sales charges, penalties and interest earnings on cash balances.

Development Fee Revenues - Fees for the purpose of compensating the City for the additional costs of water and sewer infrastructure and water purchases which are driven by development. The City currently charges two types of development fees:

- **Water and Water Resources Development Fees** - for the cost of new water treatment, production, pumping, storage, transmission facilities driven by developments and for acquiring and leasing new water supplies and for reclamation of the groundwater aquifer driven by development. Effective July 1, 2014 the water resource supply fee is combined with the water development fee.
- **Sewer Development Fees** - for the cost of sewer capital expansion for enlargement of the publicly owned treatment works and the wastewater collection system driven by development.

New Bond Issues - The City may issue an additional \$57.1 million during the five year planning period for water and sewer system improvements.

USES OF FUNDS

Operating Expenses - Expenditures incurred to provide services to customers and are recovered through water and sewer rates and charges. These include the expenses of the Water Resources Division as well as expenses of the Treasurer's Office connected with water and sewer billings and collections.

Operating Transfers - Transfers to the City's general fund for use of assets or for services provided including:

- **Indirect cost allocation** - a general allocation charge for services provided by the general fund for the benefit of the water and sewer funds.
- **Franchise fees** - a reimbursement to the general fund for the utility's use of City streets and rights-of-way. This fee is currently equal to 5.0% of the operating revenues of the utility funds.

Debt Service - Annual principal and interest expense for repayment of borrowed funds. A portion of these bonds will be repaid from development fee revenues for expenditures associated with growth-related projects.

Capital Improvement Plan (CIP) - Transfers for replacement, rehabilitation and expansion of water and sewer infrastructure derived from the most recently updated water and sewer Capital Improvement Plan.

IV. Five Year Financial Plan

The water and sewer Five Year Financial Plan for fiscal year 2016/17 through fiscal year 2020/21 begins with forecasted cash balances totaling \$114.9 million for water and \$62.7 million for sewer.

The Water Five Year Financial Plan forecasts the following rate increases:

| | <u>2016/17</u> | <u>2017/18</u> | <u>2018/19</u> | <u>2019/20</u> | <u>2020/21</u> |
|--------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Water | 0% | 3.0% | 3.0% | 2.0% | 2.0% |
| Sewer | 0% | 3.0% | 3.0% | 3.0% | 3.0% |

Total forecasted rate revenues for the five year period are \$492.0 million for water and \$207.4 million for sewer.

Forecasted operating expenses and transfers for the five year period total \$259.2 million for water and \$110.6 million for sewer; these forecasts include inflationary cost increases and anticipated operating impacts from capital projects that become operational during the planning period.

The most significant area impacting the five year plan is the forecasted Capital Improvement Plan (CIP) funding transfers that total \$262.6 million for water and sewer. Forecasted CIP expenditures are expected to peak in fiscal year 2016/17 with a combined water and sewer total of \$77.2 million.

The following pages provide annual detail for fiscal year 2016/17 through fiscal year 2020/21.

Sources and Uses of Funds FY 2016/17 through 2020/21

Amounts in \$Millions

Water Enterprise Fund

| | <u>2016/17</u> | <u>2017/18</u> | <u>2018/19</u> | <u>2019/20</u> | <u>2020/21</u> | <u>Recap</u> |
|---|----------------|----------------|----------------|----------------|----------------|--------------|
| Beginning Cash Balance | \$114.9 | \$73.9 | \$79.0 | \$69.3 | \$70.8 | \$114.9 |
| Sources of Funds | | | | | | |
| Rate Revenues* | 93.3 | 96.1 | 98.9 | 100.8 | 102.8 | 492.0 |
| Other Revenues* | 1.5 | 1.7 | 2.0 | 2.2 | 2.4 | 9.8 |
| Development Fee Revenues* | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 9.0 |
| New Bond Issues | 0.0 | 42.1 | 0.0 | 0.0 | 0.0 | 42.1 |
| Total Sources of Funds | 211.5 | 215.6 | 181.7 | 174.2 | 177.8 | 667.7 |
| Uses of Funds | | | | | | |
| Operating Expenses | 49.4 | 50.3 | 51.6 | 53.0 | 54.9 | 259.2 |
| Operating Transfers | 10.8 | 11.0 | 11.2 | 11.3 | 11.6 | 55.9 |
| Debt Service | 18.0 | 20.8 | 21.2 | 21.1 | 21.1 | 102.1 |
| Capital Improvement Funding | 59.4 | 54.5 | 28.5 | 17.8 | 14.8 | 175.0 |
| Total Uses of Funds | 137.6 | 136.5 | 112.4 | 103.3 | 102.3 | 592.2 |
| Ending Cash Balance | 73.9 | 79.0 | 69.3 | 70.8 | 75.5 | |
| Less Required Reserves | | | | | | |
| Operating Reserve | 11.0 | 11.2 | 11.5 | 11.8 | 12.2 | |
| Replacement & Extension Reserve | 27.5 | 28.6 | 29.1 | 29.4 | 29.7 | |
| Revenue Bond Reserve | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Capital / Rate Stabilization Balance | \$35.2 | \$39.2 | \$28.7 | \$29.6 | \$33.7 | |
| Debt Coverage Ratios ⁽¹⁾ | 2.0% | 1.8% | 1.8% | 1.9% | 1.9% | |

⁽¹⁾Include 50% of Development Fees

*Cash flow projections for residential and nonresidential customers.

Note: Minor differences due to rounding

Sources and Uses of Funds FY 2016/17 through 2020/21

Amounts in \$Millions

Sewer Enterprise Fund

| | <u>2016/17</u> | <u>2017/18</u> | <u>2018/19</u> | <u>2019/20</u> | <u>2020/21</u> | <u>Recap</u> |
|---|----------------|----------------|----------------|----------------|----------------|--------------|
| Beginning Cash Balance | \$62.7 | \$53.1 | \$61.3 | \$52.8 | \$40.6 | \$62.7 |
| Sources of Funds | | | | | | |
| Rate Revenues* | 39.2 | 40.3 | 41.4 | 42.6 | 43.8 | 207.4 |
| Other Revenues* | 4.3 | 4.5 | 4.7 | 4.8 | 5.0 | 23.3 |
| Development Fee Revenues* | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 7.5 |
| New Bond Issues | 0.0 | 15.0 | 0.0 | 0.0 | 0.0 | 15.0 |
| Total Sources of Funds | 107.8 | 114.4 | 108.9 | 101.7 | 90.9 | 315.9 |
| Uses of Funds | | | | | | |
| Operating Expenses | 21.5 | 21.5 | 22.1 | 22.5 | 23.1 | 110.6 |
| Operating Transfers | 3.1 | 3.2 | 3.2 | 3.3 | 3.3 | 16.1 |
| Debt Service | 12.3 | 13.4 | 13.6 | 13.8 | 13.9 | 66.9 |
| Capital Improvement Funding | 17.8 | 14.9 | 17.2 | 21.5 | 16.1 | 87.6 |
| Total Uses of Funds | 54.7 | 53.0 | 56.2 | 61.1 | 56.4 | 281.3 |
| Ending Cash Balance | 53.1 | 61.3 | 52.8 | 40.6 | 34.5 | |
| Less Required Reserves | | | | | | |
| Operating Reserve | 4.0 | 4.1 | 4.2 | 4.2 | 4.3 | |
| Replacement & Extension Reserve | 12.3 | 12.6 | 12.9 | 13.3 | 13.6 | |
| Revenue Bond Reserve | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | |
| Capital / Rate Stabilization Balance | \$32.1 | \$40.1 | \$31.1 | \$18.5 | \$12.0 | |
| Debt Coverage Ratios ⁽¹⁾ | 1.4% | 1.4% | 1.4% | 1.4% | 1.5% | |

⁽¹⁾Include 50% of Development Fees

*Cash flow projections for residential and nonresidential customers.

Note: Minor differences due to rounding

| Capital Project Expenditures - Cash Flow Forecast FY 2016/17 Through FY 2020/21 Amounts in \$Millions Water and Sewer Enterprise Funds | | | | | | |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|---------------------|
| Project Description | <u>2016/17</u> | <u>2017/18</u> | <u>2018/19</u> | <u>2019/20</u> | <u>2020/21</u> | <u>Total</u> |
| SROG WWTP and Collection System | \$4.2 | \$3.0 | \$7.3 | \$10.2 | \$7.7 | \$32.5 |
| Water Distribution System Improvements | 4.5 | 7.4 | 6.6 | 6.8 | 4.5 | 29.8 |
| Thomas Groundwater Treatment Facility | 8.0 | 10.0 | 6.0 | 1.1 | - | 25.1 |
| Wastewater Collection System Improvements | 7.6 | 5.7 | 4.4 | 3.3 | 2.7 | 23.6 |
| Water Treatment Facility Improvements | 6.2 | 3.0 | 3.2 | 2.7 | 2.6 | 17.6 |
| FLW 24-inch Trans Main & Booster Station 83B Modifications | 8.4 | 4.5 | 1.5 | - | - | 14.4 |
| Zone 14/16 Water Improvements Phase 2 | 7.5 | 6.4 | 0.2 | - | - | 14.1 |
| Water Meter Replacement Program | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 11.2 |
| Wastewater Treatment Facility Improvements | 1.5 | 1.0 | 1.2 | 4.2 | 2.0 | 9.8 |
| Zone 2 Water System Improvements | 4.5 | 3.7 | 0.5 | - | - | 8.7 |
| Booster Station Upgrades | 1.5 | 1.2 | 0.3 | 1.4 | 0.7 | 5.0 |
| East Dynamite Area Transmission Main | 0.4 | 3.0 | 1.3 | - | - | 4.6 |
| Zone 3 Water System Improvements | 0.3 | 3.0 | 1.3 | - | - | 4.6 |
| Cross Roads East Water | 2.7 | 1.8 | - | - | - | 4.5 |
| Deep Well Recharge/Recovery Facilities | 1.7 | 2.2 | 0.3 | - | - | 4.2 |
| Water Treatment Plant Membranes | 1.1 | 1.1 | 1.1 | 0.4 | 0.4 | 4.1 |
| Cross Roads East Wastewater | 0.7 | 2.2 | 1.0 | - | - | 3.8 |
| Hayden & Thunderbird Roads Waterline Replacement | 2.4 | - | - | - | - | 2.4 |
| Chaparral Water Treatment Plant Pretreatment | 1.6 | 0.6 | - | - | - | 2.2 |
| Water System Security Enhancements | 0.4 | 0.4 | 0.3 | 0.4 | 0.5 | 2.0 |
| Advance Water Treatment Plant Membranes - Wastewater | - | - | 0.4 | 0.8 | 0.5 | 1.8 |
| Water Reclamation Security Enhancements | 0.4 | 0.3 | 0.4 | 0.4 | 0.3 | 1.8 |
| Well Sites Rehabilitation | 0.3 | 0.3 | 0.4 | 0.2 | 0.5 | 1.6 |
| Drainage & Paving Improvements (Wastewater) | 1.1 | 0.4 | - | - | - | 1.5 |
| Booster Pump Station 42B Infrastructure Improvements | 1.2 | 0.1 | - | - | - | 1.3 |
| Water Participation Program | - | - | 0.2 | 0.2 | 0.4 | 0.8 |
| Site 71 Well Site and Water Booster Station | 0.7 | - | - | - | - | 0.7 |
| Miscellaneous projects | 6.2 | 4.0 | 3.1 | 1.8 | 2.6 | 17.7 |
| Cash Flow and Inflation Adjustment | - | 2.0 | 2.6 | 3.2 | 3.3 | 11.2 |
| Total Projects | \$77.2 | \$69.4 | \$45.7 | \$39.3 | \$30.9 | \$262.6 |
| Note: minor differences due to rounding | | | | | | |

Exhibits

The following exhibits include the existing water and sewer rates schedules and proposed miscellaneous water meter/service charges updates.

EXHIBIT A



Water Rates Schedule

November 1, 2015

Source: City of Scottsdale Revised City Code, Section 49-48

| BASE FEES | |
|----------------------|----------|
| All Customer Classes | |
| 5/8" | \$11.25 |
| 3/4" | \$14.50 |
| 1" | \$20.50 |
| 1 1/2" | \$33.75 |
| 2" | \$45.00 |
| 3" | \$60.00 |
| 4" | \$140.00 |
| 6" | \$280.00 |
| 8" | \$390.00 |

| COMMODITY RATES | | | |
|---|-----------------------|----------------|--------|
| Tier # | Rate per 1,000 Gal | Gallons of Use | |
| Single Family Residential and Landscape/Irrigation by Single Family | | | |
| | | From | To |
| 1 | \$1.65 | 0 | 5,000 |
| 2 | \$2.85 | 5,001 | 12,000 |
| 3 | \$3.55 | 12,001 | 40,000 |
| 4 | \$4.50 | 40,001 | 65,000 |
| 5 | \$5.25 | Over 65,000 | |
| Multi-Family Residential/ Commercial/Industrial/ Non-Residential | | | |
| | | From | To |
| 1 | \$1.65 | 0 | 5,000 |
| 2 | \$2.85 | 5,001 | 10,000 |
| 3 | \$3.55 | 10,001 | 30,000 |
| 4 | \$3.85 | Over 30,000 | |
| Landscape/Irrigation by Multi-Family Residential/ Commercial/Industrial/ Non-Residential | | | |
| | | From | To |
| 1 | \$1.65 | 0 | 5,000 |
| 2 | \$2.85 | 5,001 | 10,000 |
| 3 | \$3.55 | 10,001 | 30,000 |
| 4 | \$3.85 | Over 30,000 | |

Notes:

In addition to the rates charged in this section: 1) a stormwater account charge of one dollar and ten cents (\$1.10) per month 2) a State of Arizona water quality assurance fee of \$0.0065 per 1,000 gallons will be added to the total of all water charges calculated in accordance with the above rate schedules and 3) a two dollar (\$2.00) monthly charge for a meter without AMR device in areas of implementation. Applicable privilege tax and other taxes will be added.

Outside of City customers are charged a ten percent (10%) surcharge applied to the base fee and commodity rates described above.

Treasury Department – Utility Billing Office

7447 E Indian School Road, Suite 110, Scottsdale, AZ 85251 • Phone: 480-312-2461 • Fax: 480-312-4803

EXHIBIT B



Sewer Rates Schedule

Effective July 1, 2015

Source: City of Scottsdale Revised City Code, Section 49-141

| User Category | Charge Per 1,000 Gallons ⁽¹⁾ | | |
|-------------------------------|---|-----------|-----------|
| | O & M | Capital | Total |
| Single-family Residential | \$1.15 | \$1.48 | \$2.63 |
| Multi-family Residential | \$1.18 | \$1.52 | \$2.70 |
| Commercial without dining | \$1.05 | \$1.65 | \$2.70 |
| Commercial with dining | \$1.50 | \$1.75 | \$3.25 |
| Hotels, motels without dining | \$1.16 | \$1.63 | \$2.79 |
| Hotels, motels with dining | \$1.65 | \$1.70 | \$3.35 |
| Carwashes | \$0.95 | \$1.65 | \$2.60 |
| Commercial Laundry | \$1.76 | \$1.63 | \$3.39 |
| Laundromats | \$1.09 | \$1.63 | \$2.72 |
| Metal Platers | \$1.11 | \$1.65 | \$2.76 |
| Restaurants; bakeries | \$3.03 | \$1.67 | \$4.70 |
| Service station auto repair | \$1.16 | \$1.63 | \$2.79 |
| Medical Institutes | \$1.29 | \$1.65 | \$2.94 |
| Schools | \$1.09 | \$1.63 | \$2.72 |
| Non compliant | See below | See below | See below |

Notes: ⁽¹⁾The monthly sewer service charge is calculated by multiplying 90% of the customer's average winter consumption for the prior December, January and February by the rates shown above. In addition to the O & M and Capital charges, all sewer users shall pay a base fee for all customer classes as follows:

| Meter size | Base Fee |
|---------------------|----------|
| 5/8, 3/4 and 1 Inch | \$3.00 |
| 1.5 Inch | \$18.00 |
| 2 Inch | \$42.00 |
| 3 Inch | \$54.00 |
| 4 Inch | \$78.00 |
| 6 Inch | \$150.00 |
| 8 Inch | \$210.00 |

- Non Compliant: Once a customer is designated as non compliant, the then current O & M and Capital charges will be adjusted by one hundred and fifty percent (150%) for a minimum of six months.
- Out of City customers are charged a ten percent (10%) surcharge applied to the O & M, Capital and Base Fees described above.
- Applicable privilege tax will be added.

Treasury Department – Utility Billing Office

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EXHIBIT C



Miscellaneous Water Meter/Service Charges

Proposed Effective July 1, 2016

Source: City of Scottsdale Revised City Code Section 49

| METER SIZE | METER ONLY (1) | SERVICE ONLY | TURBINE METER ONLY | METER AND SERVICE | FIRELINE SERVICE | TEMPORARY CONSTRUCTION METER DEPOSIT |
|------------|----------------|--------------|--------------------|-------------------|------------------|--------------------------------------|
| 5/8" | \$250 | \$908 | N/A | \$1,158 | N/A | N/A |
| 3/4" | \$300 | \$919 | N/A | \$1,219 | N/A | N/A |
| 1" | \$315 | \$979 | N/A | \$1,294 | N/A | \$300 |
| 1.5" | \$472 | \$1,576 | N/A | \$2,048 | \$1,700 | N/A |
| 2" | \$568 | \$1,810 | N/A | \$2,378 | \$1,813 | N/A |
| 3" | ** | ** | ** | ** | ** | \$1,200 |

*Meter and Service Located Outside Of City Limits - Add 25% Surcharge per City Code Sec. 49-21
Connection and Meter Installation Fees

**Rates for 3" Meters and Larger, Contact Development Services at 480-312-2500

| | |
|---|-------------|
| Refuse Container | \$86.10 |
| Recycle Container | \$61.71 |
| Move Service & Meter or Meter Only | |
| Less than 15 Feet | \$322 |
| Greater than 15 feet | Actual Cost |
| Raise or Lower Service & meter to Grade | \$200 |
| Meter Bench Test – Malfunctioning | \$0 |
| Meter Bench Test – Normal Functioning | \$50 |
| Water Main Shutdown | \$260 |

Call Utility Billing at 480-312-2461 for questions on Hydrant Meters

Call Development Services at 480-312-2500 for questions on Construction Flow Meters

Learn More at:

Scottsdaleaz.gov/Assets/Public+Website/water/Water+Operations/ConstHydrantMeterFS.pdf

City of Scottsdale

Miscellaneous Water Meter/Service Charges